

Surface morphology and particle size analysis of Ba_{0.5}Sr_{0.5}TiO₃ nano-powder grown using sol-gel method

ABSTRACT

Barium Strontium Titanate powder in the form of nano cubic particles has been prepared using slow rate gellification by sol-gel method. X-Ray Diffractometer results show that single phase formation occurred at 800 °C and the crystallite size for this sample was found to be 36.06 nm. Scanning Electron Microscopy analysis shows that the particles in the sample calcinated at 800 °C do not agglomerate and the average particle size was found to be 42.30 nm. The nano particle size analyzer results show a narrow particle distribution with good uniformity.